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10/705,963	11/13/2003	Takeshi Fujimoto	2018-803	6722
23117	7590	04/24/2007	EXAMINER	
NIXON & VANDERHYE, PC			KAPLAN, HAL IRA	
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ARLINGTON, VA 22203			ART UNIT	PAPER NUMBER
				2836
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE		DELIVERY MODE
3 MONTHS		04/24/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/705,963	FUJIMOTO ET AL.
	Examiner Hal I. Kaplan	Art Unit 2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 January 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 2-14 and 16-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 2-14, 16 and 19 is/are rejected.
- 7) Claim(s) 17, 18 and 20-29 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 August 2006 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2-14 recite “pre-state start detecting means” and “vehicle state detecting means”. In the Remarks dated January 5, 2007, the Applicant explains that the pre-start state detecting means detects a “pre-start state” by detecting a preparation operation for a start of the engine, and the vehicle state detecting means detects a “vehicle state”. However, the specification does not clearly recite the difference between a “pre-start state” and a “vehicle state”; it is thus unclear how the pre-start state detecting means and vehicle state detecting means perform different functions. For purposes of this Office Action, the Examiner has assumed that a “pre-start state” is the vehicle state just prior to starting of the engine; that a “preparation operation for a start of the engine” can be any act performed by the user on the vehicle or a part of the vehicle prior to starting of the engine; and that the difference between the pre-start state detecting means and the vehicle state detecting means is that the pre-start state detecting means is intended to function only during the time prior to the engine starting, whereas the vehicle state detecting means constantly functions. The pre-start state

detecting means (e.g. driver seat switch 9) will thus perform the same indication function as the vehicle state detecting means at the time prior to start of the engine.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 2, 6, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by the US patent of Iwatani et al. (6,629,512).

As to claims 2 and 16, Iwatani, drawn to an internal combustion engine with heat accumulating device, teaches a system read on the claimed system, comprising: warming-up means (21) for executing warming-up of an engine (10) (see column 9, lines 56-56 and 64-67); pre-start state detecting means (sensors) for detecting a pre-start state by detecting a preparation for a start of the engine (10) (see column 6, lines 53-54), wherein the warming-up means (21) executes the warming-up prior to the start of the engine when the pre-start state detecting means detects the pre-start state (see column 6, lines 45-58 and 66-67, and column 7, lines 10-17); anomaly detecting means (30) for detecting an anomaly of the pre-start state detecting means (see column 4, lines 33-55 and column 21, lines 2-3 and 5-8); and vehicle state detecting means (22a,23a,25a,26,27,27a,28) for detecting a vehicle state, wherein the pre-start state detecting means detects the pre-start state based on a given signal, and wherein the anomaly detecting means detects the anomaly of the pre-start state detecting means

based on the given signal and the vehicle state detected by the vehicle state detecting means (see column 6, lines 52-58).

As to claims 6 and 19, the pre-start state detecting means detects the pre-start state based on an ON-signal or an OFF-signal of an ignition key insertion switch as the given signal (see column 6, lines 45-47).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani in view of the US patent of Ajima (5,845,624).

Iwatani teaches all of the claimed features, as set forth above, except for the warming-up means executing the warming-up by controlling an electric current. Ajima, drawn to an air-fuel ratio control system for internal combustion engine, discloses a warming-up means which executes a warming-up by controlling an electric current flowing through a heater provided in a catalytic converter provided in the exhaust gas path for purifying harmful gas (see column 20, lines 12-16). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to build an internal combustion engine with warming-up means provided by a heater in a catalytic converter, rather than through a system that uses heat generated by the engine itself, in order to use less space under the hood and reduce harmful emissions.

Allowable Subject Matter

9. Claims 3-5 and 7-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claims 17, 18, and 20-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

Claims 3-5, 8-11, 17, 18, and 20-23 contain allowable subject matter because none of the prior art of record discloses or suggests detecting the pre-start state based on an ON- or OFF-signal of a driver seat switch, door opening/closing switch, or door-handle manipulation switch, in combination with the remaining claimed features.

Claim 7 contains allowable subject matter because none of the prior art of record discloses or suggests an anomaly detecting means detecting an anomaly of a pre-start state detecting means when any of the claimed conditions is satisfied, in combination with the remaining claimed features.

Claims 12 and 24 contain allowable subject matter because none of the prior art of record discloses or suggests detecting a final anomaly when an anomaly is detected for more than a given period, in combination with the remaining claimed features.

Claims 13 and 25 contain allowable subject matter because none of the prior art of record discloses or suggests the claimed use of a counter, in combination with the remaining claimed features.

Claims 26 and 27 contain allowable subject matter because none of the prior art of record discloses or suggests the claimed detected vehicle state being one or more of the listed parameters being greater than or equal to a given level, in combination with the remaining claimed features.

Claim 28 contains allowable subject matter because none of the prior art of record discloses or suggests the detected vehicle state being the position of the ignition

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key (the detected pre-start state of Iwatani is whether an ON- or OFF-signal is received, regardless of the actual ignition key position), in combination with the remaining claimed features.

Claim 29 contains allowable subject matter because none of the prior art of record discloses or suggests executing warm-up of one of the claimed components, in combination with the remaining claimed features.

Response to Arguments

12. Applicant's arguments, see Remarks, filed January 5, 2007, with respect to the objections and rejections have been fully considered and are persuasive, except as set forth above. The objections and rejections have been withdrawn, except as set forth above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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